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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/051,263	08/07/1998	GEORGE W. SHAW	0081-012	7818
40972 7590 04/08/2008 HENNEMAN & ASSOCIATES, PLC 714 W. MICHIGAN AVENUE THREE RIVERS, MI 49093				
EXAMINER				
LI, AIMEE J				
ART UNIT		PAPER NUMBER		
2183				
MAIL DATE		DELIVERY MODE		
04/08/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

09/051,263

**Applicant(s)**

SHAW ET AL.

**Examiner**

AIMEE J. LI

**Art Unit**

2183

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2007 and 17 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12, 27-30 and 45-76 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-12, 27-30 and 45-76 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 6/29/07, 9/20/07
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Claims 1-12, 27-30, and new claims 45-76 remain. Claims 13-26 and 31-44 were cancelled as per Applicants' request. New claims 45-76 were added as per Applicants' request. claims 1, 3, 8, 10, and 27 were amended as per Applicants' request.

#### ***Papers Submitted***

2. It is hereby acknowledged that the following papers have been received and placed of record in the file: IDS as filed 29 June 2007; Amendment as filed 29 June 2007; Amendment as filed 17 September 2007; IDS as filed 20 September 2007; and IDS as filed 20 September 2007.

#### ***Information Disclosure Statement***

3. The first information disclosure statement filed 20 September 2007 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because
- a. Element CB under Foreign Patent Documents has a different application number (EP 85105578.2) and year (1983) printed on it than the cited information in the 1449 (EP 85105578.0 and 1984).
  - b. Element DC under Other References could not be found in the provided NPL.
  - c. Element DJ under Other References has a different month printed on it (June) than the cited information in the 1449 (May).
  - d. Element DM under Other References has different pages printed on it (pages 8-14) than the cited pertinent pages (pages 11-20) and the cited pertinent pages falls out of the range of the printed page numbers.
  - e. Element DN under Other References has page III-42 as the last printed page, but the cited pertinent page ends at III-62.

- f. Element DP under Other References starts at page 346 as the first printed page, but the cited pertinent page starts at page 60.
  - g. Element DQ under Other References is illegible.
  - h. Element DT under Other References has provided printed pages 17-21, but the cited pertinent pages are III to 62.
4. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).
5. The second information disclosure statement filed 20 September 2007 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because it is an exact copy of the first IDS filed the same day. As such all references have already been considered with the first submitted IDS or has the same problems with a reference as the first IDS. It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

***Election/Restrictions***

6. Restriction is required under 35 U.S.C. 121 and 372.
7. This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.
8. In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.
  - a. Group I, claim(s) 1-7, 69, and 74, drawn to memory addressing and the ALU and execution unit details.
  - b. Group II, claim(s) 8-12, drawn to accessing memory via generic bus arbitration and timing.
  - c. Group III, claim(s) 27-30 and 72, drawn to bus arbitration and prioritization details.
  - d. Group IV, claim(s) 45-62, drawn to a different microprocessor system with many different elements and functionalities.
  - e. Group V, claim(s) 63-64, 68, and 73, drawn to instruction fetching.
  - f. Group VI, claim(s) 65-66, 70-71, and 75-76, drawn to stack architecture.
  - g. Group VII, claim(s) 67, drawn to loop control found in the memory control of the microprocessor system.
9. The inventions listed as Groups I to VII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: As described above, the claims, both amended and newly presented, focus on separate subject matter. The amended claims originally presented were generic enough in language so that they appeared to overlap in

the intended invention claimed. However, after amending the claims, it became apparent that the claims were directed to separate subcombinations of subject matter. So, while they might contain similar recitation of the basic elements of a processor, the claims as amended and presented focus on separate subject matter.

10. The Examiner notes that it appears the Applicant is attempting to claim separate distinct inventions in a single application by presenting linking claims between the separate inventions. The Examiner highly encourages Applicant and Applicants' representatives to review the guidelines set forth in the MPEP chapter 800, and specifically review linking claims in MPEP section 809. Applicant and Applicants' representative are encouraged to contact the Examiner with regards to any questions that may arise from this restriction. Due to the complicated nature of this restriction and the number of separate groups in the restriction, a phone call was not placed to Applicants' representative, since the restriction would be more clearly presented in written form.

11. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

12. The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

13. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the

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currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Conclusion***

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to AIMEE J. LI whose telephone number is (571)272-4169. The examiner can normally be reached on M-T 7:00am-4:30pm.

15. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Chan can be reached on (571) 272-4162. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aimee J Li/  
Primary Examiner, Art Unit 2183  
30 March 2008